Application No.: 10/619,782

Response to Office Action of November 17, 2005

Attorney Docket: TUCKB-001A

Amendments to the Specification:

[0025]The bed 56 may have a work pattern (not shown). The work pattern may be at least one through hole wherein the through hole extends from the top surface 66 of the bed 56 to the opposed bottom surface 68 of the bed 56. By way of example and not limitation, the through holes may have shapes such as circular holes, oval holes, curved slots and straight slots. The work pattern may be determined by the type of work to be done on the work piece. For example, the work piece 52 may be a sheet of particle board used in an adjustable shelf cabinet. In this regard, the particle board may have a series of bored holes such that a cabinet owner may place pins in respective holes to locate the various shelves in the adjustable shelf cabinet. As such, the work pattern of the bed 56 may be configured as a series of holes to allow the drill(s) 54 to have its drill bit(s) proceed through the series of holes and form the series of bored holes in the particle board (see Figure 5). The work pattern (e.g., through holes) of the bed 56 may provide access to the areas of the particle board which require the bored holes.

[0032] The clamp linkage system 62 may be attached to the clamp 58 and the lever 64 at a clamp pivot 71 74, and the drill linkage system 60 may be attached to the drill 54 and the lever 64 at the drill pivot 72. The linkage systems may be operative to transmit forces between the lever 64 and respective clamp 58 and drill 54. The force transmission ratio may be one or more with respect to the force originating from the lever 64 to the force transmitted to respective clamp 58 and drill 54. For an example of a one to one force transmission ratio, the lever 64 may exert two pounds of force through the clamp linkage system 62 and the clamp 58 may exert two pounds of clamp downward force in the aggregate onto the work piece 52. For an example of a one to two force transmission ratio, the lever 64 may exert one pound of force through the clamp linkage system 62 and the clamp 58 may exert two pounds of clamp downward force in the aggregate onto the work piece 52. By way of example and not limitation, the clamp and drill linkage systems 60, 62 may be a combination of at least one elongate bar 78 (see Figs. 2-4), L-link 80 (see Fig. 3), C-link 82 (see Fig. 4), pulleys (not shown) and/or pull cables 84 (see Fig. 2), as discussed further below.

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[0039] Referring now to Figure [[3]] 4, the clamp linkage system 62 may comprise an elongate bar 78b which is rotatably attached to the C-link 82. The C-link defines a fixed pivot 92c, base 102, first leg 104 and second leg 106. The first leg 104, second leg 106 and base 102 rotate about the fixed pivot 92c in reaction to a downward force created by the lever 64 at the clamp pivot 74 and transmitted through the C-link 82, specifically, the first leg 104 of the C-link 82 by the elongate bar 78b. In response, the second leg 106 of the C-link 82 rotates counter clockwise in relation to the fixed pivot 92c of the C-link 82 until the clamp 58 contacts the work piece 52. In this way, the downward force created by the lever 64 at the clamp pivot 74 applied to the elongate bar 78b is transmitted to the work piece 52 by the clamp 58.

[0040] As stated above, the clamp pivot 74 is traversable between the up position and the down position. The traversable path of the clamp pivot 74 may be circular or linear. In relation to the circular traversable path of the clamp pivot 74, as shown in Fig. 4, an elongate bar 78d having a configuration of the letter "J" has a first distal end 108 [[as]] at a fixed pivot 92d, and a second distal end 110 of the elongate bar 78d is rotatablably attached to the clamp pivot 74 on the lever 64. In this regard, the clamp pivot 74 of the lever 64 may traverse a circular path about the fixed pivot 92d of the first distal end 108 of the elongate bar 78d.